



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 8, 2016

Ms. Susan Mackert
Virginia Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

**RE: Possum Point Power Station VPDES Permit No. VA0002071:
Removal of Surface Water from Ash Pond E**

Dear Ms. Mackert:

As requested, enclosed is a summary of the process that Dominion employed to remove the surface water from Ash Pond E at Possum Point Power Station. Removal of the surface water from Ash Pond E occurred between March 25 and May 7, 2015. An initial portion of the water was decanted through VPDES permitted Outfall 005 in accordance with the station's permit. All discharge from Outfall 005 to a water way stopped on April 28, 2015. The remainder of the surface water in Ash Pond E was pumped to Ash Pond D and has not been discharged.

Please feel free to contact Ken Roller at (804) 273-3404 or kenneth.roller@dom.com should you have any questions concerning this submittal.

Sincerely,

Cathy C. Taylor
Director, Electric Environmental Services

etc:

David Craymer

Pamela Faggert

Cathy Taylor

Frank Brayton

Jeffrey Heffelman

Christine Harris

Jason E. Williams

Jeff Marcell

Ken Roller

Doug Wight

Mike Glagola

Oula Shehab-Dandan

Amelia Boschen

Ian Whitlock

File Documentum: Possum Point/Water-NPDES/Compliance Reporting and Supporting
Documents/PP Process for Decanting Pond E 8 Feb 2016

Process for Removal of Surface Water from Possum Point Ash Pond E

Following is a summary of the process Dominion employed to remove surface water from Ash Pond E at the Possum Point Power Station.

Volume of Water in Ash Pond E prior to initiation of decanting:

In March 2015, prior to decanting Ash Pond E, the ash surface within the pond was topographically mapped. During that process the volume of surface water in Ash Pond E (i.e., water above the ash surface) was estimated to be 52.5 million gallons.

Decanting of Ash Pond E:

Decanting of Ash Pond E was initiated on March 25, 2015 by removal of a stop log from the decant structure associated with Outfall 005.

Between March 25 and April 13, 2015, a total of ten stop logs were removed from the decant structure, enabling surface water to decant through Outfall 005. DMR samples were collected during this period and confirmed that the discharge was compliant with all permit limits. Periodic visual observations of the discharge also indicated good water clarity, and periodic confirmatory grab samples showed constituent concentrations below applicable effluent limits.

On April 20, 2015 Dominion began pumping the remaining surface water in Ash Pond E to Ash Pond D.

On April 22, 2015 a visual observation of Outfall 005 confirmed that the discharge had been reduced to a trickle.

On April 28, 2015 all discharge to a water way from Outfall 005 was stopped by placement of a submersible pump in the concrete basin located on the outlet side of the Outfall 005 pipe. Water that exited the pipe entered the concrete basin, was collected without discharge to the water way, and was pumped back to Ash Pond E.

From May 5 through May 7, Dominion's contractor, Crofton Diving, sealed off the decant structure associated with Outfall 005 so that no water would leak from the decant structure into the concrete basin located on the outlet side of the Outfall 005 pipe.

On May 7, 2015 Dominion stopped pumping continuously from Ash Pond E to ash Pond D as the majority of the surface water in Ash Pond E had been removed.

Volumes of Water Decanted to Outfall 005 and Pumped to Ash Pond D

It is estimated that approximately 27.5 MG of water were decanted to Outfall 005 during the period from March 25 through April 20, 2015. This volume was determined using the initial volume of 52.5 million gallons, ash pond bathymetric data, and the known difference in surface elevation between the top of the first and bottom of the last stop logs removed during the decanting process. The remaining 25.3 MG of surface water in Ash Pond E was pumped to Ash Pond D during the period from April 20 through May 7, 2015.

Clarification of the sequence for decanting Ash Pond E and statements made in a previous Dominion submittal and a DEQ Inspection Report

As described above, discharge from Ash Pond E through Outfall 005 was completely eliminated on April 28, 2015 with placement and operation of the submersible pump in the concrete basin associated with the Outfall 005 discharge structure. Consequently, April 2015 was the last month that Dominion reported a discharge from Outfall 005 on discharge monitoring reports. It has come to Dominion's attention that there may be some confusion associated with the following statements taken from a Concept Engineering Report (CER) submitted as part of the August 2015 addendum to Possum Point's application for VPDES permit modification and with a June 15, 2015 DEQ report summarizing a May 13, 2015 inspection at Possum Point. A discussion of each statement relative to the known process for decanting Ash Pond E is provided below.

CER August 2015, p 1, Section 1.2.1

"Pond E Decant Water, which refers to the surface water stored in Pond E that was discharged into Quantico Creek in May 2015 in compliance with the Station's existing VA Pollutant Discharge Elimination System (VPDES) permit by sequentially removing stop logs at the outfall structure (to Outfall 005). The Decant Water was discharged to begin dredging of ash Pond E."

Discussion: The text "in May 2015" should have read "as of May 2015" (consistent with CER August 2015, p 3, Section 1.2.2.3) since all discharges through Outfall 005 ceased on April 28, 2015. Also, the text should have been more clear that only a portion of the surface water was decanted and discharged through Outfall 005. The remainder of the surface water was pumped from Ash Pond E to Ash Pond D.

CER August 2015, p 3, Section 1.2.2.3

"Ash Pond E has been decanted as of May 2015, prior to beginning dredging activities. The decanted waters were discharged in compliance with the VPDES permit through Outfall 005 at the riser structure by removing stop logs. There have been no discharges from Pond E since the pond was decanted."

Discussion: This statement is accurate based on the sequence of events described above; however, some additional information concerning the April 28th cessation of discharge from Outfall 005 and the pumping of surface water from Ash Pond E to Ash Pond D beginning on April 20, 2015 would have provided additional clarity.

DEQ Recon Inspection Report June 15, 2015, p 1

"Ash Pond E was observed to have been dewatered, vegetation stripped from the top layer (approximately 8-10 inches), and dewatering channels cut into the ash. (Photo 1) Dewatering activities were carried out via a pump on a floating intake within Ash Pond E, which pumps water into Ash Pond D. A pump in the outfall box associated with Outfall 005 pumps any discharging water back into Ash Pond E. As a result, a discharge out of Pond E has not occurred since May 7, 2015. (Photos 2-6)"

Discussion: The above statement is accurate but should be clarified. The use of the term "decanted" instead of "dewatered" in the first sentence would be more precise. Also, May 7th was the last day that

decant water was continuously pumped from Ash Pond E to Ash Pond D. We believe that this is what was meant by "discharge out of Pond E has not occurred since May 7, 2015" in the last sentence. All discharge to a water way from Outfall 005 was stopped on April 28, 2015.

Draining of Ash Pond "E" - Data

Sampled Internally

NM = Not Measured

Date	Time	Weir Height (")	TSS (in mg/l)	pH
3/9/2015		5.50	5.9	8.21
3/16/2015		4.50	8.4 (DMR sample taken)	8.10
3/26/2015		2.50	4.5	8.15
3/30/2015	0830	0.75	6.8	7.88
3/31/2015	0800	2.00	6.3	8.17
4/1/2015			DMR sample taken	
4/2/2015	0730	2.50	5.2	8.07
4/6/2015		0.50	NM (DMR sample taken, visual had good clarity)	7.93
4/7/2015		3.25	NM (visual had good clarity)	8.02
4/8/2015	0915	3.00	NM (visual had good clarity)	8.13
4/9/2015	0837	3.50	NM (visual had good clarity)	8.06
4/13/2015	0810	0.50	NM (visual had good clarity)	7.93
4/14/2015	0820	4.00	19.8	8.21
4/15/2015	0725	4.00	25.6	8.01
4/22/2015	0830	NA	NM (low flow, not enough to sample)	7.27

Kenneth Roller (Services - 6)

From: Kenneth Kinder [K.Kinder@gaiconsultants.com]
Sent: Friday, February 05, 2016 10:23 AM
To: John A Cima (Generation - 34); Michael A Glagola (Generation - 34)
Cc: Doug Wight (Generation - 34); Michael J Winters (Generation - 34); Shaikh Z Rahman (Generation - 34); John Klamut; Kenneth Roller (Services - 6)
Subject: RE: Estimate of water removed from Pond E

Team,

Per John Cima's email below, GAI revised the estimate for the decant water volume from Pond E considering 1) a top of riser elevation of 43 feet, and 2) the top of riser elevation as surveyed with GPS by Glover. As indicated in my email below, the top of the stop logs was measured in the field to be 11'-3.75" inches below the top of the riser.





- 1) Considering a top of riser elevation of 43 feet, this puts the top of stop log elevation at 31.7 feet. Using the same calculation approach outlined below and assuming a starting water surface elevation of 36.5 feet, this would indicate that approximately **22.1 MG** of water was decanted from Pond E.
- 2) Tim Collins (Glover) located the top of riser with a handheld GPS and measured the top of riser elevation to be 41.76 feet. Considering a top of riser elevation of 41.76 feet, this puts the top of stop log elevation at 30.45 feet. Using the same calculation approach outlined below and assuming a starting water surface elevation of 36.5 feet, this would indicate that approximately **27.2 MG** of water was decanted from Pond E.

Let me know if you have any questions or if you need anything else.

Thanks

Kenneth W. Kinder, PE, CFM
Assistant Engineering Manager

GAI Consultants, Inc.
300 Summers Street, Suite 1100, Charleston, WV 25301

T 304.926.8100 | D 681.245.8869 | gaiconsultants.com |    

* Please update your records with my new direct telephone number



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From: John A Cima (Generation - 34) [mailto:John.A.Cima@dom.com]
Sent: Thursday, February 04, 2016 3:23 PM
To: Michael A Glagola (Generation - 34) <michael.a.glagola@dom.com>
Cc: Doug Wight (Generation - 34) <doug.wight@dom.com>; Michael J Winters (Generation - 34) <Michael.J.Winters@dom.com>; Shaikh Z Rahman (Generation - 34) <Shaikh.Z.Rahman@dom.com>; John Klamut <J.Klamut@gaiconsultants.com>; Kenneth Roller (Services - 6) <kenneth.roller@dom.com>; Kenneth Kinder <K.Kinder@gaiconsultants.com>
Subject: RE: Estimate of water removed from Pond E
Importance: High

Mike,

Spoke to Kenneth Kinder at GAI and Ken Roller – Kenneth is going to re-run the volumes based on 1) an assumed top of tower elevation of 43 and 2) a top of tower elevation to be supplied by Glover using a hand-held GPS unit for comparison. Ken Roller agrees that these are accurate enough for the purposes of providing the revised information to DEQ. Based on observations of the staff gauge on the tower in the photo I previously supplied, these two calculations should give us a revised volume of water removed that is to a sufficient degree accuracy. We are comparing these elevations to those obtained by bathymetric surveys for the submerged ash surface – these surveys have some accuracy limitations, especially when you are trying to ascertain the depth to the bottom in a “fluffy/soft” ash environment.

GAI is aware of the immediate need for these revised volumes and will get them to us ASAP. We do not plan to mobilize a surveyor at this time.

John

John A. Cima P.E.

John A. Cima, P.E.

Power Generation Engineering

Phone: (804)-273-3045; Cell: (804)-912-5432

From: Michael A Glagola (Generation - 34)

Sent: Thursday, February 04, 2016 2:45 PM

To: Kenneth Roller (Services - 6); John A Cima (Generation - 34); 'Kenneth Kinder'

Cc: Doug Wight (Generation - 34); Michael J Winters (Generation - 34); Shaikh Z Rahman (Generation - 34); 'John Klamut'

Subject: RE: Estimate of water removed from Pond E

John Klamut can get a surveyor out there tomorrow but it would take another day to run around the data for the calculation. He did say they could estimate it though.

Thanks,

Mike

From: Kenneth Roller (Services - 6)

Sent: Thursday, February 04, 2016 2:41 PM

To: John A Cima (Generation - 34); 'Kenneth Kinder'

Cc: Doug Wight (Generation - 34); Michael J Winters (Generation - 34); Shaikh Z Rahman (Generation - 34); Michael A Glagola (Generation - 34); 'John Klamut'

Subject: RE: Estimate of water removed from Pond E

How fast can we get this done? We have got to get this information to DEQ ASAP.

From: John A Cima (Generation - 34)

Sent: Thursday, February 04, 2016 2:05 PM

To: Kenneth Roller (Services - 6); Kenneth Kinder

Cc: Doug Wight (Generation - 34); Michael J Winters (Generation - 34); Shaikh Z Rahman (Generation - 34); Michael A Glagola (Generation - 34); John Klamut

Subject: RE: Estimate of water removed from Pond E

Ken R. and Kenneth K.,

After looking at the information below, it appears that measurements and elevations used by GAI below are based on the original decant tower top elevation of 40.0 (Original 1967 Stone & Webster design drawings). Just prior to Ash Pond

D Construction in 1987-1988. Billy Sergeant raised the Pond E Dike 3 feet +/- to provide for additional storage because we were running out of space. The original tower was also raised a commensurate amount (see photo attached). GAI or the site needs to have a surveyor verify the top elevation of the tower as it is now and then re-do the calculations below. This will affect the volume calculations that we have provided in preliminary form to DEQ in our meeting yesterday. I have reviewed at the design drawings and the bottom elevation of the decant tower (top of base footing) is at elevation 9.0, as is the bottom of the last stop log as shown (see excerpt from SW Drawing 11430-FY-2A attached).

Obviously, this is a hot item so we need to have the verifying survey and the volume numbers below revised by GAI ASAP.

Let me know if you have any additional questions.

John

John A. Cima P.E.

John A. Cima, P.E.

Power Generation Engineering

Phone: (804)-273-3045; Cell: (804)-912-5432

From: Doug Wight (Generation - 34)
Sent: Thursday, February 04, 2016 1:18 PM
To: John A Cima (Generation - 34)
Subject: FW: Estimate of water removed from Pond E

From: Kenneth Kinder [<mailto:K.Kinder@gaiconsultants.com>]
Sent: Friday, January 29, 2016 2:31 PM
To: Doug Wight (Generation - 34)
Cc: Michael J Winters (Generation - 34); Michael A Glagola (Generation - 34); John Klamut
Subject: Estimate of water removed from Pond E

Doug,





Per your request, we estimated the amount of water decanted from Pond E through Outfall 005. The top of the stop logs was measured in the field to be 11'-3.75" inches below the top of the riser. Considering a top of riser elevation of 40 feet, this puts the top of the stop log elevation at 28.7 feet. Using CAD, we pulled volume comparisons considering; 1) the starting water surface elevation (36.5 feet) versus the 2015 bathymetric/top of ash surface, and 2) the top of stop log elevation (28.7 feet) versus the 2015 bathymetric/top of ash surface. The difference between these two volume comparisons was about 33.7 MG. Therefore, we estimate that there was 52.5 MG of water in Pond E in February 2015 (date of survey), 33.7 MG of this water was decanted through Outfall 005 and about 18.8 MG was pumped to Pond D.

Let me know if you need anything else.

Thanks,

Kenneth W. Kinder, PE, CFM
Assistant Engineering Manager

GAI Consultants, Inc.
300 Summers Street, Suite 1100, Charleston, WV 25301

T 304.926.8100 | D 681.245.8869 | gaiconsultants.com |    

* Please update your records with my new direct telephone number



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COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

Molly Joseph Ward
Secretary of Natural Resources

13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

David K. Paylor
Director

Thomas A. Faha
Regional Director

June 23, 2015

Ms. Cathy C. Taylor
Director, Electric Environmental Services
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, VA 23060

Re: Dominion – Possum Point Power Station, Permit #VA0002071

Dear Ms. Taylor:

Attached is a copy of the inspection report generated from the recon inspection conducted at the Dominion – Possum Point Power Station facility on May 13, 2015. DEQ would like to thank Mr. Jeff Marcell, Mr. Alan Eudye, Mr. Reubin Williams, and Mr. Whitey Pope for their assistance during the inspection.

If you have any questions or comments concerning this report, please feel free to contact me at the Northern Regional Office at 703-583-3905 or amy.dooley@deq.virginia.gov.

Respectfully,

A handwritten signature in cursive script, reading "Amy E. Dooley".

Amy E. Dooley
Environmental Specialist II

Electronic copy sent:

Permits/DMR File, Compliance Manager, Compliance Auditor, Enforcement – DEQ

Virginia Department of Environmental Quality

RECON INSPECTION REPORT

FACILITY NAME: Dominion Possum Point Power Station		INSPECTION DATE: May 13, 2015	
		INSPECTOR: Amy Dooley	
PERMIT No.: VA0002071		REPORT DATE: June 3, 2015	
TYPE OF FACILITY: <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Major <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Minor <input type="checkbox"/> Federal <input type="checkbox"/> Small Minor <input type="checkbox"/> HP <input type="checkbox"/> LP		TIME OF INSPECTION: <div style="display: flex; justify-content: space-between;"> 1300 Arrival 1600 Departure </div>	TOTAL TIME SPENT 16hrs
PHOTOGRAPHS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		UNANNOUNCED INSPECTION? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
REVIEWED BY / Date: <div style="text-align: center;"> 6/4/15 </div>			
PRESENT DURING INSPECTION: <u>Susan Mackert, Alan Eudye, Reubin Williams, Whitey Pope, Jeff Marcell</u>			

INSPECTION OVERVIEW AND CONDITION OF TREATMENT UNITS

Upon arrival to the site, DEQ staff stated their purpose for being onsite, which was to conduct a recon inspection of the ash ponds. The guard at the gate attempted to contact someone that would be able to assist DEQ with the site inspection. Upon further coordination, Mr. Marcell was reached and was able to conduct the inspection.

Mr. Marcell indicated that Dominion is currently mobilizing and preparing for the closure of Ash Ponds A, B, C, D, and E.

Ash Pond E was observed to have been dewatered, vegetation stripped from the top layer (approximately 8-10 inches), and dewatering channels cut into the ash. (Photo 1)

Dewatering activities were carried out via a pump on a floating intake within Ash Pond E, which pumps water into Ash Pond D. A pump in the outfall box associated with Outfall 005 pumps any discharging water back into Ash Pond E. As a result, a discharge out of Pond E has not occurred since May 7, 2015. (Photos 2-6)

The metals cleaning waste treatment basin (metals ponds) was observed. The metals-ponds had been pumped into Ash Pond E to the maximum extent practicable and considered "empty" by Dominion. (Photos 7)

Water level observed in Ash Pond D was lower than the riser structure and piping infrastructure associated with dewatering activities in Ash Pond E were observed. (Photos 8 and 9)

Flowing water was heard in Outfall S107; Mr. Marcell indicated it was mostly groundwater, but could also include toe drainage and surface water flow.

Ash Ponds A, B and C were observed. Dominion has sealed the discharge structure at Ash Pond C with a polyurethane grout in an attempt to reduce/eliminate the discharge from the structure. Additionally, sand bags have been placed along points of the berm/dam along Ash Ponds A and B to address overtopping of the berm. According to Dominion, seepage at Ash Pond A is influenced by standing water and heavy rain events. Toe seepage was observed along two points of the berm of Ash Pond B. A small amount of water was observed in Ash Pond C's discharge structure. (Photos 10-15)

Test pits were observed along Ponds A, B, and C to determine the depth and location of ash in the ponds. (Photo 16)

VA DEQ Recon Inspection Report

Permit #	VA0002071
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EFFLUENT FIELD DATA:

Flow	<input type="text"/> MGD	Dissolved Oxygen	<input type="text"/> mg/L	TRC (Contact Tank)	<input type="text"/> mg/L
pH	<input type="text"/> S.U.	Temperature	<input type="text"/> °C	TRC (Final Effluent)	<input type="text"/> mg/L
Was a Sampling Inspection conducted? <input type="checkbox"/> Yes (see Sampling Inspection Report) <input checked="" type="checkbox"/> No					

CONDITION OF OUTFALL AND EFFLUENT CHARACTERISTICS:

1. Type of outfall:	<input type="checkbox"/> Shore based	<input type="checkbox"/> Submerged	Diffuser?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. Are the outfall and supporting structures in good condition?				<input type="checkbox"/> Yes	<input type="checkbox"/> No
3. Final Effluent (evidence of following problems):	<input type="checkbox"/> Sludge bar		<input type="checkbox"/> Grease		
	<input type="checkbox"/> Turbid effluent	<input type="checkbox"/> Visible foam	<input type="checkbox"/> Unusual color	<input type="checkbox"/> Oil sheen	
4. Is there a visible effluent plume in the receiving stream?				<input type="checkbox"/> Yes	<input type="checkbox"/> No
5. Receiving stream:	<input type="checkbox"/> No observed problems			<input type="checkbox"/> Indication of problems (explain below)	
<u>Comments:</u> Did not observe condition of outfalls and receiving stream channels.					

REQUEST for CORRECTIVE ACTION:

None

NOTES and COMMENTS:

None

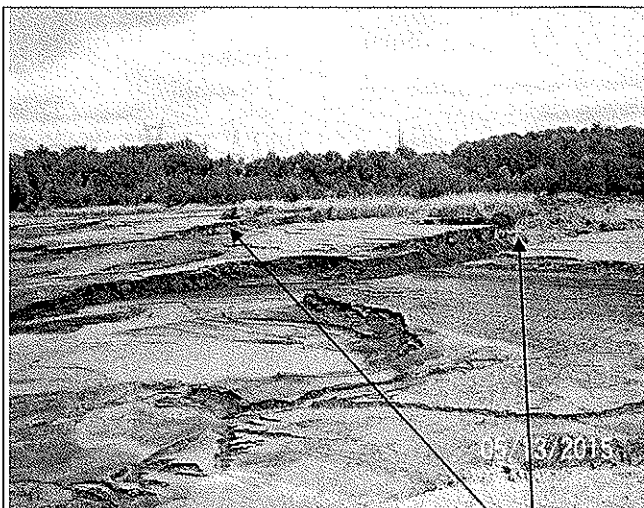


Photo 1: Dewatered Ash Pond E with dewatering trenches.

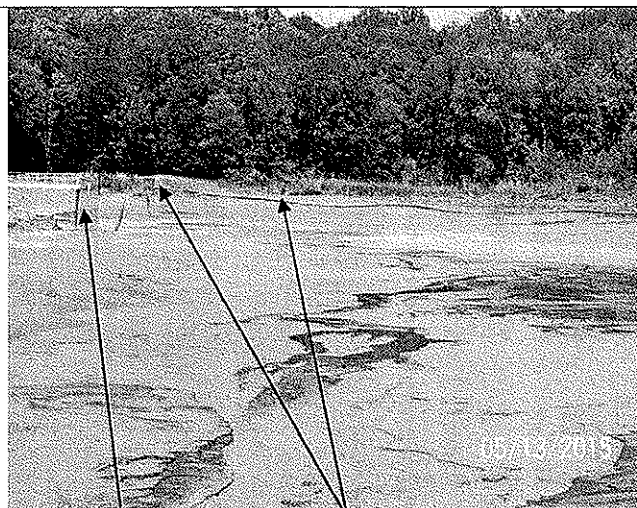


Photo 2: Riser structure and pumping infrastructure to pump water from Ash Pond E to Ash Pond D.

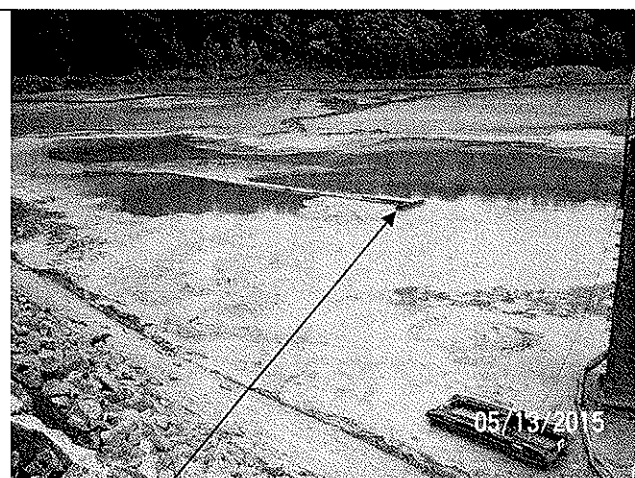


Photo 3: Floating intake on pump.

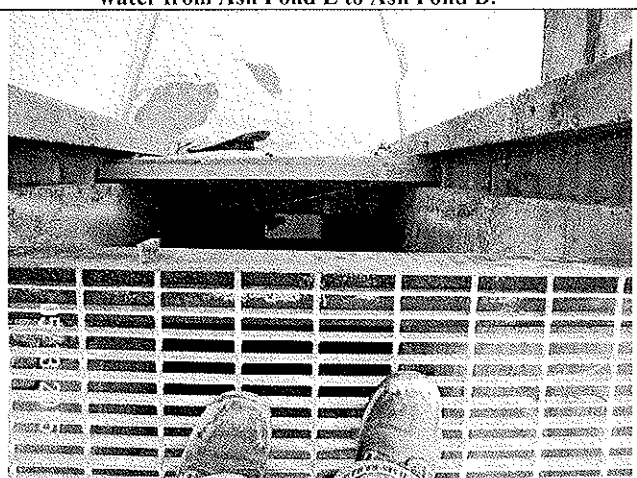


Photo 4: Inside Ash Pond E riser structure.



Photo 5: Outfall 005



Photo 6: Submersed intake pipe to pump water from Outfall 005 box back into Ash Pond E.

Facility name: Dominion Possum Point
Site Inspection Date: May 13, 2015

VPDES Permit No. VA0002071
Photos & Layout by: Amy Dooley
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Photo 7: Metal cleaning pond.



Photo 8: Ash Pond D and riser structure.



Photo 9: Piping from dewatering activities in Ash Pond E.



Photo 10: Sand bags installed along previously observed overtopping in Ash Pond A.



Photo 11: Sand bags installed along previously observed overtopping along Ash Pond A and gravel installed at previous beach (red arrow).



Photo 12: Sand bags installed along previously observed overtopping along Ash Pond A. Standing water evident behind bags.

Facility name: Dominion Possum Point
Site Inspection Date: May 13, 2015

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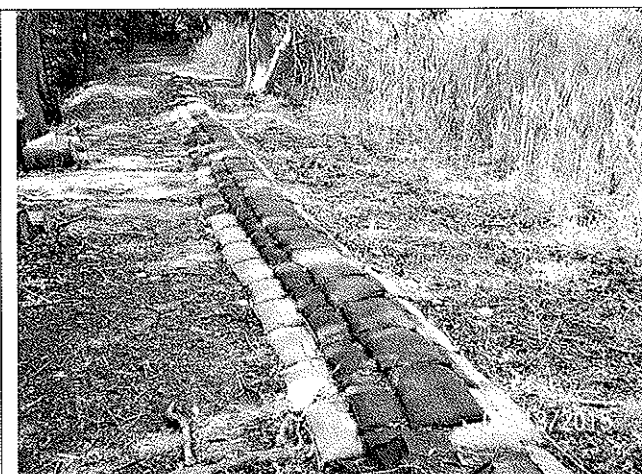


Photo 13: Sand bags installed along previously observed overtopping along Ash Pond A.



Photo 14: Sealing of discharge structure in Ash Pond C.

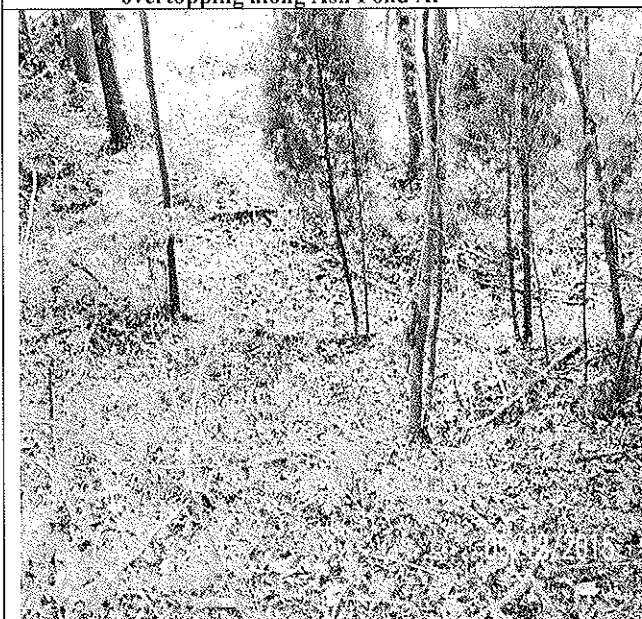


Photo 15: Toe seepage along Ash Pond B's berm.



Photo 16: Test pits at Ash Ponds A, B, and C to determine extent of ash depth.

Facility name: Dominion Possum Point
 Site Inspection Date: May 13, 2015

VPDES Permit No. VA0002071
 Photos & Layout by: Amy Dooley
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